# MATERIAL SAFETY DATA SHEET

## Section 1: Product and Company Information

**Product Name(s):** Kraft Faced Fiberglass Insulation, Foil Faced Fiberglass Insulation, FSK Foil Insulation, Blowing Wool

**Manufacturer:** Western Fiberglass Corporation, 6955 Union Park Center, Suite 580, Midvale, UT 84047

Owens Corning, One Owens Corning Parkway, Attn. Product Stewardship, Toledo, OH, 43659,
Telephone: 1-419-248-8234 (8am-5pm ET weekdays).

**Emergency Contacts:**

Emergencies ONLY (after 5pm ET and weekends): 1-419-248-5330,
CHEMTREC (24 hours everyday): 1-800-424-9300,
CANUTEC (Canada - 24 hours everyday): 1-613-996-6666.

**Health and Technical Contacts:**

Health Issues Information (8am-5pm ET):1-419-248-8234,
Technical Product Information (8am-5pm ET): 1-520-466-7855.

## Section 2: Product and Company Information

| Common Name | Chemical Name | CAS No. | Wt. % |
|---|---|---|---|
| Fiber Glass Wool | Fibrous Glass | 65997-17-3 | 85-96 |
| Cured Binder | Urea, polymer of phenol & formaldehyde | 25104-55-6 | 4-15 |
| Formaldehyde (trace) | Formaldehyde | 50-00-0 | <0.1 |

**Note:** See Section 8 of MSDS for exposure limit data for these ingredients.

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## Section 3: Hazards Identification

**Appearance and Odor**: White, yellow or tan fibrous material with faint resin odor. Some products have a vinyl, brown paper, foil, or polypropylene facing

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### Emergency Overview

Fire may cause hydrogen chloride to be released from vinyl faced products.

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**Primary Route(s) of Exposure**: inhalation, skin, eye

**Potential Health Effects**:

**ACUTE (short term):** Fiber glass wool is a mechanical irritant and may cause temporary irritation of the respiratory tract, skin and eyes. See Section 8 for exposure controls.

**CHRONIC (long term):** Fiber glass wool is a possible cancer hazard. Use of these products has not been shown to cause cancer in humans. Fiber glass wool caused cancer in animals through unnatural routes of exposure (surgical implantation), but has not produced significant cancer by inhalation. See Section 11 of MSDS for additional toxicological data.

**Medical Conditions Aggravated by Exposure:** Chronic respiratory or skin conditions may temporarily worsen from exposure to these products.

## Section 4: First Aid Measures

**Inhalation**: Move person to fresh air. Administer cardiac or pulmonary resuscitation (CPR) if a pulse is not detectable or if unable to breathe. Provide oxygen if breathing is difficult. Obtain immediate medical assistance if irritation persists.

**Eye Contact**: Flush eyes with running water for at least 15 minutes. Seek medical attention if irritation persists.

**Skin Contact**: Wash with mild soap and running water. Use a washcloth to help remove fibers. To avoid further irritation, do not rub or scratch irritated areas. Rubbing or scratching may force fibers into skin. Seek medical attention if irritation persists.

**Ingestion**: Ingestion of this material is unlikely. If it does occur, observe individual for several days to ensure that intestinal blockage does not occur.

## Section 5: Fire Fighting Measures

**Flash Point and Method (°F)**: None.

**Flammability Limits (%)**: None.

**Auto Ignition Temperature (°F)**: Not Applicable.

**Extinguishing Media**: Water, foam, $CO_2$ or dry chemical.

**Unusual Fire and Explosion Hazards**: Vinyl faced products will release hydrogen chloride in a fire. Evacuate building immediately if this occurs.

**Fire Fighting Instructions**: Use self contained breathing apparatus (SCBA) in a sustained fire.

**Hazardous Combustion Products**: Primary combustion products are carbon monoxide, carbon dioxide, ammonia and water. Other undetermined compounds could be released in small quantities.

## Section 6: Accidental Release Measures

**Land Spill**: Scoop up or vacuum material and put into suitable container for disposal as a non-hazardous waste.

**Water Spill**: This material will sink and disperse along the bottom of waterways and ponds. It can not easily be removed after it is waterborne, however, the material is non-hazardous in water.

**Air Release:** This material will settle out of the air. It can then be scooped up or vacuumed for disposal as a non-hazardous waste.

## Section 7: Handling and Storage

**Storage Temperature:** Not applicable.

**Storage Pressure:** Not applicable.

**General:** No special storage or handling procedures are required for this material.

## Section 8: Exposure Controls and Personal Protection

| Ingredient | OSHA PEL (8 hr TWA) | ACGIH TLV (8 hr TWA) |
|---|---|---|
| Fibrous glass | 5 mg/m$^3$ (respirable dust)<br>15 mg/m$^3$ (total dust)<br>(proposed)<br>1 fiber/cc (dust) | 10 mg/m$^3$ |
| Cured Binder | None Established | None Established |
| Formaldehyde | 0.75 ppm TWA<br>2 ppm STEL | 0.3 ppm ceiling |

**Personal Protection:**

**Respiratory Protection:** 3M Model 8210 (or 8710) (3M Model 9900 in high humidity environments) or equivalent under the following conditions: 1) installing loosefill, 2) in any poorly ventilated space, 3) fabrication involving power tools, 4) any dusty environment

**Skin Protection:** Loose fitting long sleeved shirt, long pants and gloves.

**Eye Protection:** Safety glasses, goggles or face shield.

**Engineering Controls:** General dilution ventilation and/or local exhaust ventilation should be provided as necessary to maintain exposures below regulatory limits. Dust collection systems should be used in operations involving cutting or machining and may be required in operations using power tools.

## Section 9: Physical and Chemical Properties

**Vapor Pressure (mm Hg @ 20°C):** Not Available

**Vapor Density (Air=1):** Not Available

**Specific Gravity (water=1):** Not Available

**Boiling Point:** Not Available

**Solubility in Water:** Insoluble

**Viscosity:** Not Available

**pH:** Not Available

**Physical State:** Solid

**Appearance:** Fibrous

**Freezing Point:** Not Available

**Odor Type:** Organic

**Evaporation Rate (n-Butyl Acetate=1):** Not Available

## Section 10: Stability and Reactivity

**General:** Stable

**Incompatible Materials and Conditions to Avoid:** None

**Hazardous Decomposition Products:** None, except in fire. See Section 5 of MSDS for combustion products statement.

**Hazardous Polymerization:** Will not occur.

## Section 11: Toxicological Information

**CARCINOGENICITY:** The table below indicates whether or not each agency has listed each ingredient as a carcinogen:

| Ingredient | ACGIH | IARC | NTP | OSHA |
|---|---|---|---|---|
| Formaldehyde | Yes | Yes | Yes | Yes |
| Fiber Glass Wool | No | Yes | Yes | No |
| Cured Resin | No | No | No | No |

| | $LD_{50}$ Oral (mg/kg) | $LD_{50}$ Dermal (mg/kg) | $LC_{50}$ Inhalation (ppm, 4 hrs ) |
|---|---|---|---|
| Fiber Glass Wool | Not Available | Not Available | Not Available |
| Formaldehyde | 500-800 (rat) | 270 (rabbit) | 250-478 (rat) |
| Cured Resin | Not Available | Not Available | Not Available |

**Formaldehyde:** In March 1987 the International Agency for Research on Cancer (IARC) upgraded their evaluation of formaldehyde gas, based on evidence of carcinogenicity in humans, from inadequate (Group 2B) to limited (Group 2A). A number of new epidemiological studies on persons in a variety of occupations with potential exposure to formaldehyde were used in the evaluation Cancers that occurred in excess in more than one study are: Hodgkin's disease, leukemia, and cancers of the buccal cavity and pharynx (particularly nasopharynx), lung, nose, prostate, bladder, brain, colon, skin and kidney.

Exposure to formaldehyde at concentrations in excess of 1 ppm may cause significant irritation of the eyes and upper respiratory tract. The irritation threshold appears to be about 0.3 ppm. No pulmonary sensitization has been demonstrated in laboratory studies. Formaldehyde solutions can cause severe eye and moderate skin irritation. Repeated skin exposure to solutions of 2% or more formaldehyde has caused allergic skin reactions. Formaldehyde was found to be weakly active in a number of *in vitro* genotoxicity tests, but inactive *in vivo*. Formaldehyde did not cause birth defects in rats inhaling concentrations up to 10 ppm. Lifetime inhalation of formaldehyde at concentrations above 5 ppm for 6 hours per day, caused nasal tumors in laboratory animals. Many epidemiological studies have failed to link cancer in humans with occupational exposure to formaldehyde.

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**Fiber Glass Wool:** The International Agency for Research on Cancer (IARC) in June, 1987, classified fiber glass wool as possible cancer causing agent to humans (Group 2B). This classification was based on a combined evaluation of published human and animal studies. The human data included large scale mortality studies of U S. and European fiber glass wool factory workers IARC concluded that the human studies did not provide sufficient evidence that fiber glass wool caused cancer in humans. The classification of fiber glass wool as a possible carcinogen to humans was substantially based on experimental animal studies in which they were exposed to wool glass fibers through non-natural routes, such as injection or implantation. IARC regards it prudent to treat a material with sufficient evidence of carcinogenicity in animals as if it is a possible carcinogen in humans.

Animal inhalation experiments in which laboratory animals were exposed to large quantities of glass fibers have not resulted in a positive association between glass fibers and lung cancer. A small study of Canadian glass wool workers reported a statistically significant increase in lung cancer mortality. The study did not demonstrate a correlation between fiber glass wool exposure and disease. Large scale studies published in 1987 which examined the mortality rates of U.S. and European fiber glass wool factory workers found no statistically significant differences in lung cancer rates between those workers and the populations in their local or regional communities. A 1990 update of the U S cohort reported a small statistically significant excess for respiratory cancer in workers when compared with populations in their local communities. While the overall mortality rates in these mortality studies were slightly raised and did increase (but not significantly) with time since the first exposure, the increases were not related to duration of exposure or to an estimated time weighted measure of exposure. Georgetown University recently studied the oldest and largest fiber glass plant in the U.S. The results indicate that smoking was the likely cause of this cancer excess. A study at the University of Massachusetts is investigating other possible factors.

Georgetown University also reported elevated odds ratios for non-malignant respiratory disease which are deemed by the author to be inconclusive but warranting further investigation. A large recently completed morbidity study reported no association with fiber glass exposure and non-malignant respiratory disease. Another smaller screening of workers at a plant that manufactured appliances concluded that fiber glass wool appeared to produce "asbestosis" in the workers. That study has been severely criticized for many reasons, not the least of which is its failure to factor in the workers exposures to asbestos.

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## Section 12: Ecological Information

This material is not toxic to animals, plants or fish.

## Section 13: Disposal Considerations

**RCRA Hazard Class**: Non-hazardous.

## Section 14: Transport Information

**DOT Shipping Names**: Not regulated

**Hazard Class or Division**: none

**Secondary**: none

**Identification No.**: none

**Packing Group**: III

**Label(s) required (if not excepted)**: none

**Special Provisions**: none

**Packaging Exceptions**: none

**Non-bulk Packaging**: none

**Bulk packaging**: none

**EPA Hazardous Substances**: Formaldehyde

**RQ**: 100 lbs

**Quantity Limitations**:

**Passenger Aircraft**: none
**Cargo Aircraft**: none

**Marine Pollutants**: none

**Freight Description**: (NMHC)

**Hazardous Material Shipping Description**: none

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## Transportation of Dangerous Goods - Canada

**Proper Shipping Name:** Not Regulated

**TDG Hazard Classification:** **(Primary):** None **(Secondary):** None

**IMO Classification:** None

**ICAO/IATA Classification:** None

**Product Identification Number:** None

**Packing Group:** None

**Control Temperature:** None **Emergency Temperature:** None

Schedule XI Quantity Restriction: None

**Reportable Quantity for US Shipments:** None

**IATA Packing Instructions:** **Passenger/Cargo:** None
**Cargo Only:** None
**Limited Quantity:** None

**Maximum Net Quantity per Package:** **Passenger/Cargo:** None
**Cargo Only:** None
**Limited Quantity:** None

**Special Provisions:** None

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## Section 15: Regulatory Information

**TSCA Status:** Each ingredient is on the Inventory.

**NSR Status (Canada):** Each ingredient is on the DSL.

**SARA Title III:**

**Hazard Categories:**

| | |
|---|---|
| Acute Health. | Yes |
| Chronic Health. | Yes |
| Fire Hazard: | No |
| Pressure Hazard: | No |
| Reactivity Hazard. | No |

**Reportable Ingredients:**

| | |
|---|---|
| Sec. 302/304. | None |
| Sec. 313: | None |

**WHMIS (Canada):** **Status:** Controlled
**WHMIS Classifications:** D2A - Carcinogenicity

**California Proposition 65:** Fiber glass wool (respirable size) and formaldehyde are regulated as carcinogens.

## Section 16: Other Information

**HMIS and NFPA Hazard Rating:**

| Category | HMIS | NFPA |
|---|---|---|
| Acute Health | 1 | 2 |
| Flammability | 0 | 2 (facing, packaging) |
| Reactivity | 0 | 0 |

**NFPA Unusual Hazards:** None.
**HMIS Personal Protection:** To be supplied by user depending upon use.

**Revision Summary:** This MSDS is a revision to the MSDS dated April 30, 1997. The logo for Western Fiberglass replaced the OC logo in the header.